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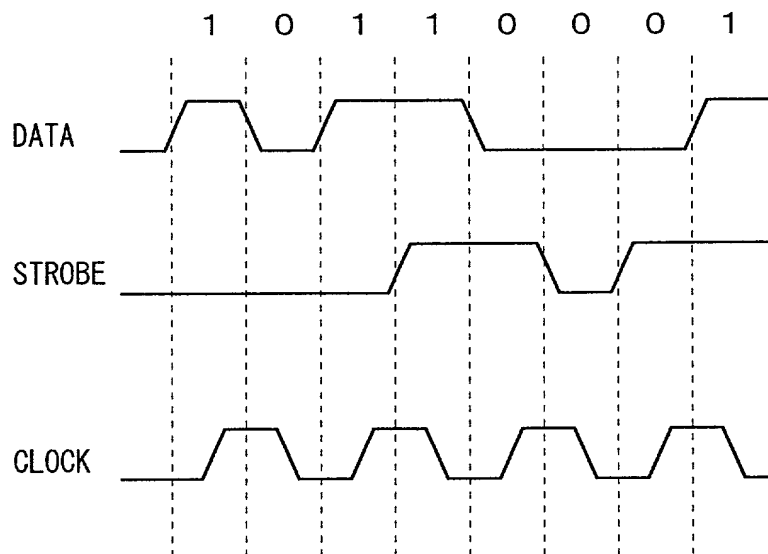


FIG. 1

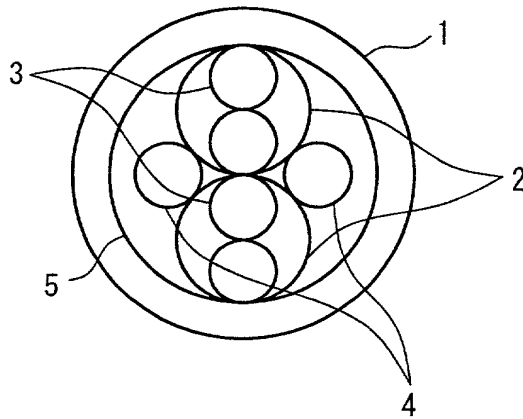


FIG. 2

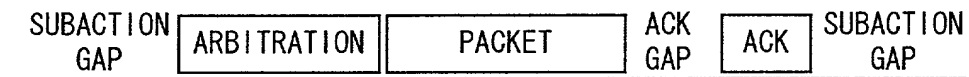


FIG. 4

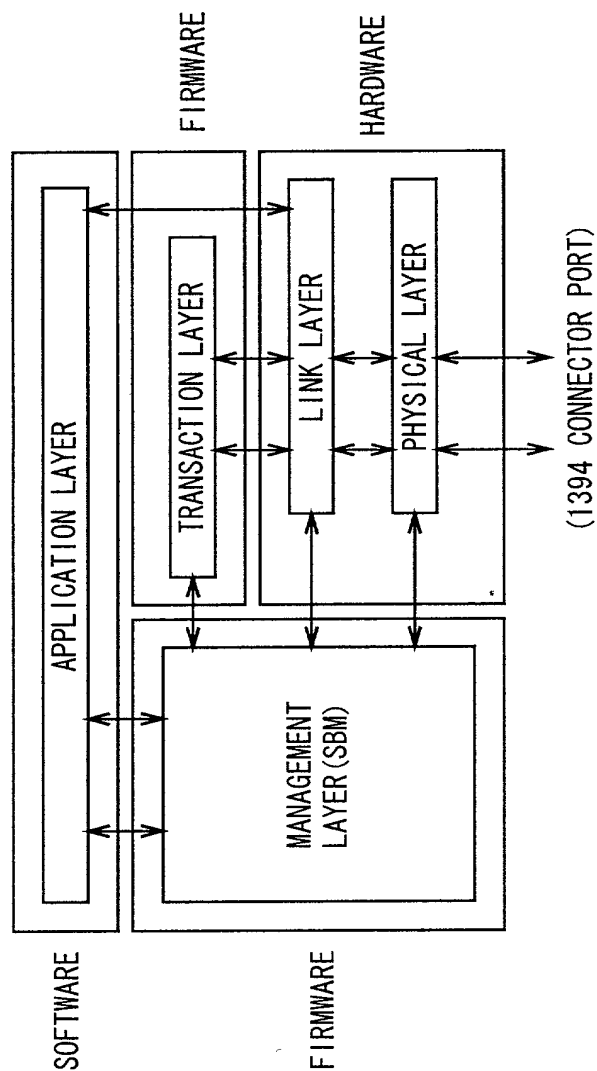


FIG. 3

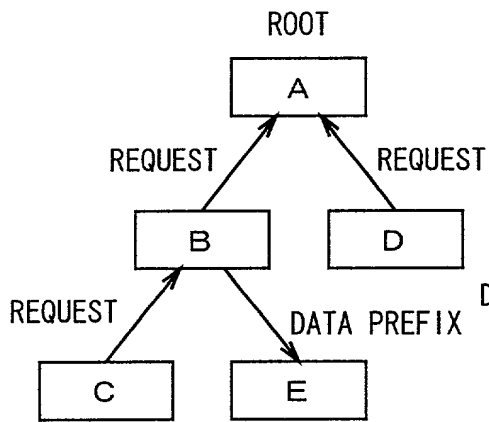


FIG. 5A

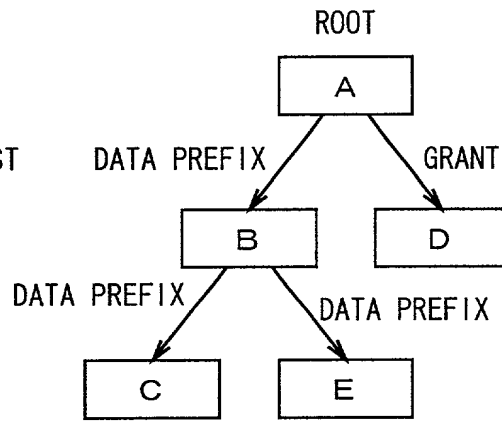


FIG. 5B

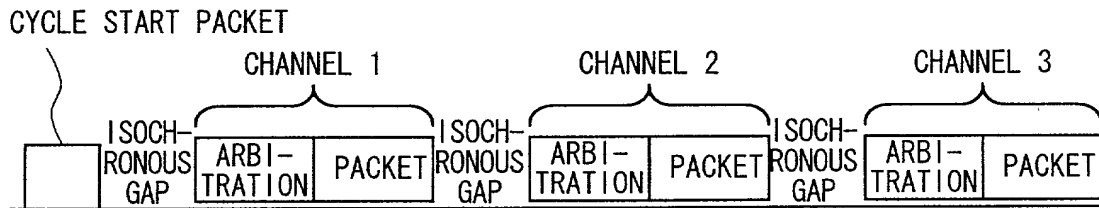


FIG. 6

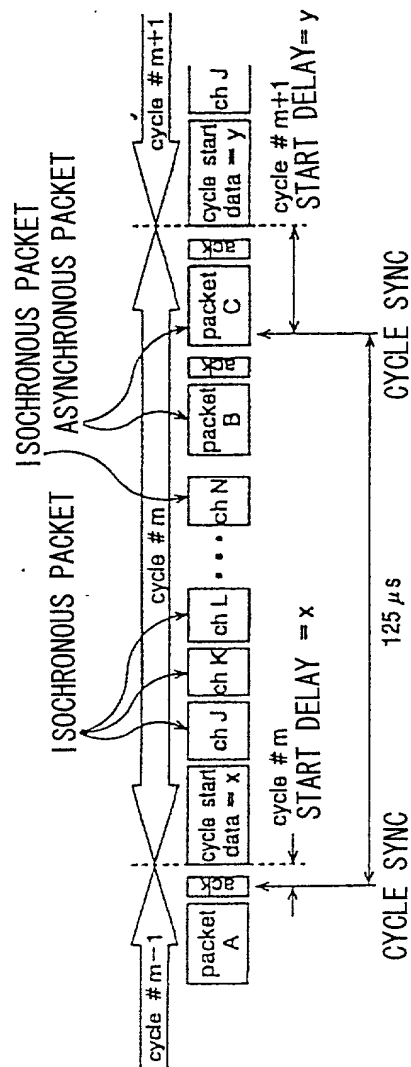


FIG. 7

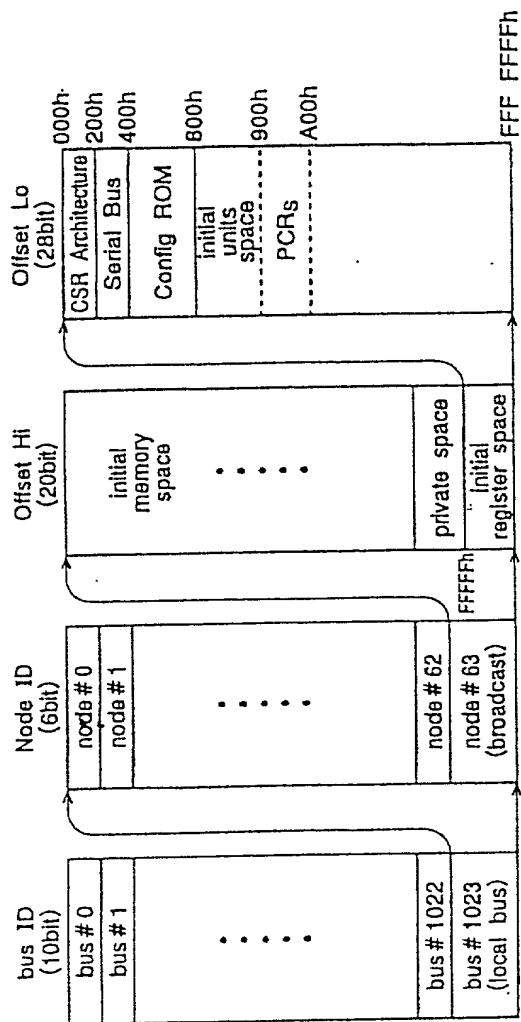


FIG. 8

OFFSET	NAME	OPERATION
000h	STATE_CLEAR	STATE AND CONTROL INFORMATION
004h	STATE_SET	SETS STATE_CLEAR BIT
008h	NODE_IDS	INDICATES 16-BIT NODE ID
00Ch	RESET_START	STARTS COMMAND RESET
018h-01Ch	SPLIT_TIMEOUT	SPECIFIES SPLIT TIMEOUT
200h	CYCLE_TIME	CYCLE TIME
210h	BUSY_TIMEOUT	SPECIFIES RETRY TIMEOUT
21Ch	BUS_MANAGER	INDICATES BUS MANAGER ID
220h	BANDWIDTH_AVAILABLE	INDICATES BANDWIDTH AVAILABLE FOR ISOTHERMUS COMMUNICATION
224h-228h	CHANNELS_AVAILABLE	INDICATES AVAILABLE STATE OF EACH CHANNEL

FIG. 9

Info_length	info_length	crc_length	rom_crc_value
	bus_info_block		
	root_directory		
	unit_directories		
	root & unit leaves		
	vendor_dependent_information		

FIG. 10



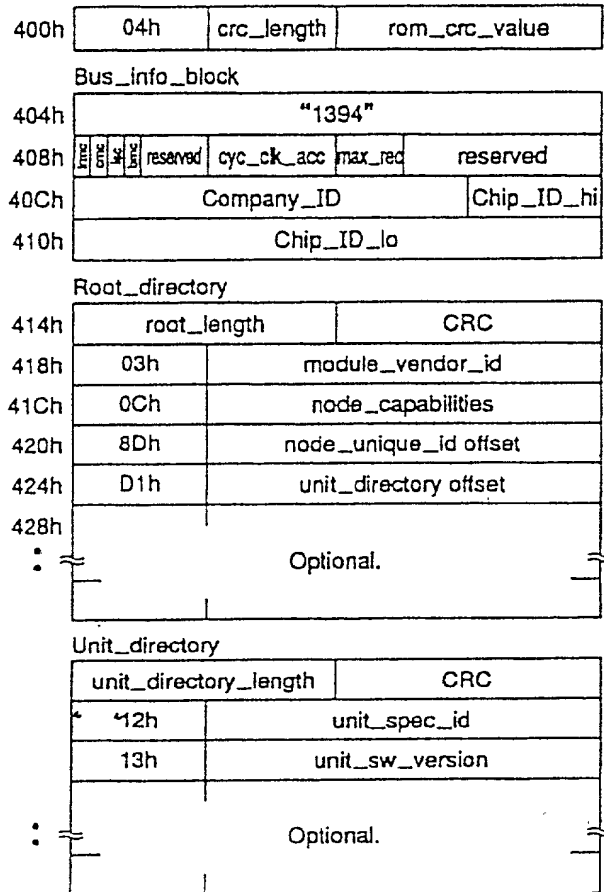


FIG. 11

900h	Output Master Plug Register
904h	Output Plug Control Register #0
908h	Output Plug Control Register #1
⋮	⋮
97Ch	Output Plug Control Register #30
980h	Input Master Plug Register
984h	Input Plug Control Register #0
988h	Input Plug Control Register #1
⋮	⋮
9FCh	Input Plug Control Register #30

FIG. 12

FIG. 13A

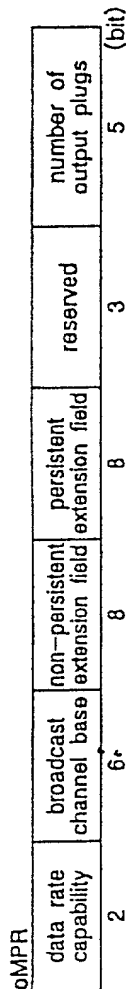


FIG. 13B

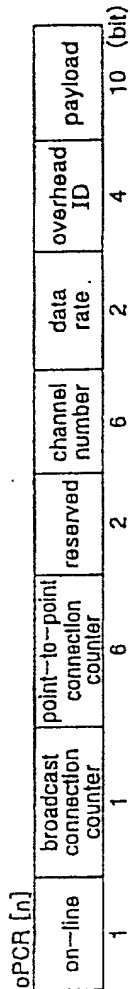


FIG. 13C

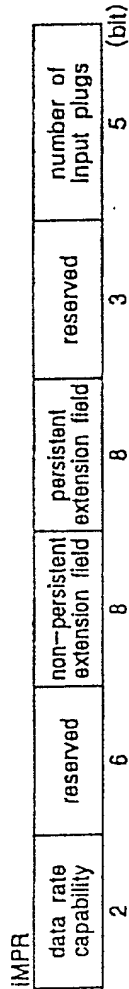
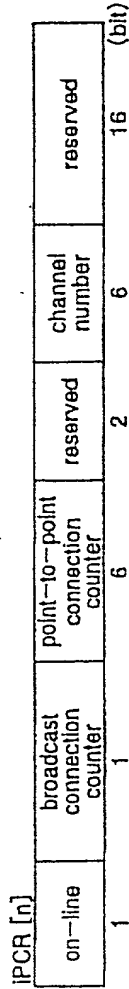


FIG. 13D



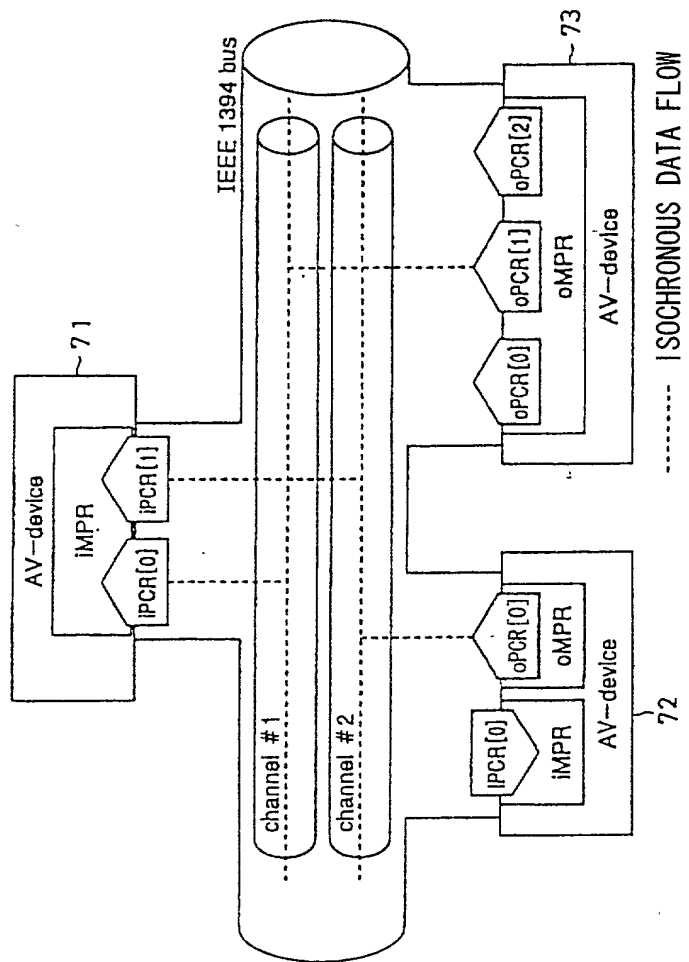


FIG. 14



The General Subunit Identifier Descriptor	
address	contents
00 00 <sub>16</sub>	descriptor_length
00 01 <sub>16</sub>	
00 02 <sub>16</sub>	generation_ID
00 03 <sub>16</sub>	size_of_list_ID
00 04 <sub>16</sub>	size_of_object_ID
00 05 <sub>16</sub>	size_of_object_position
00 06 <sub>16</sub>	number_of_root_object_lists (n)
00 07 <sub>16</sub>	
00 08 <sub>16</sub>	root_object_list_id_0
⋮	
⋮	⋮
⋮	root_object_list_id_n-1
⋮	
⋮	subunit_dependent_length
⋮	
⋮	subunit_dependent_information
⋮	
⋮	manufacturer_dependent_length
⋮	
⋮	manufacturer_dependent_information
⋮	

FIG. 16

generation_ID values	
generation_ID	meaning
00 <sub>16</sub>	Data structures and command sets as specified in the AV/C General Specification, version 3.0
all others	reserved for future specification

FIG. 17

List ID Value Assignment Ranges	
range of values	list definition
0000 <sub>16</sub> –0FFF <sub>16</sub>	reserved
1000 <sub>16</sub> –3FFF <sub>16</sub>	subunit–type dependent
4000 <sub>16</sub> –FFFF <sub>16</sub>	reserved
1 0000 <sub>16</sub> –max list ID value	subunit–type dependent

FIG. 18

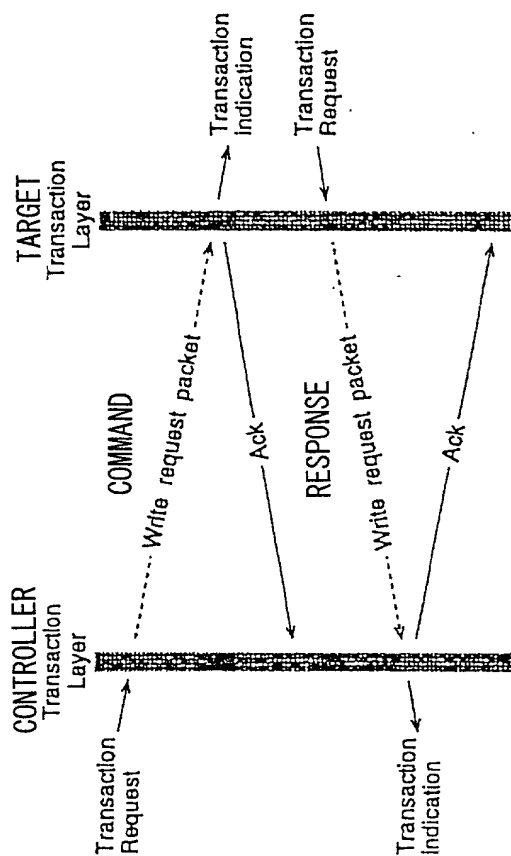


FIG. 19



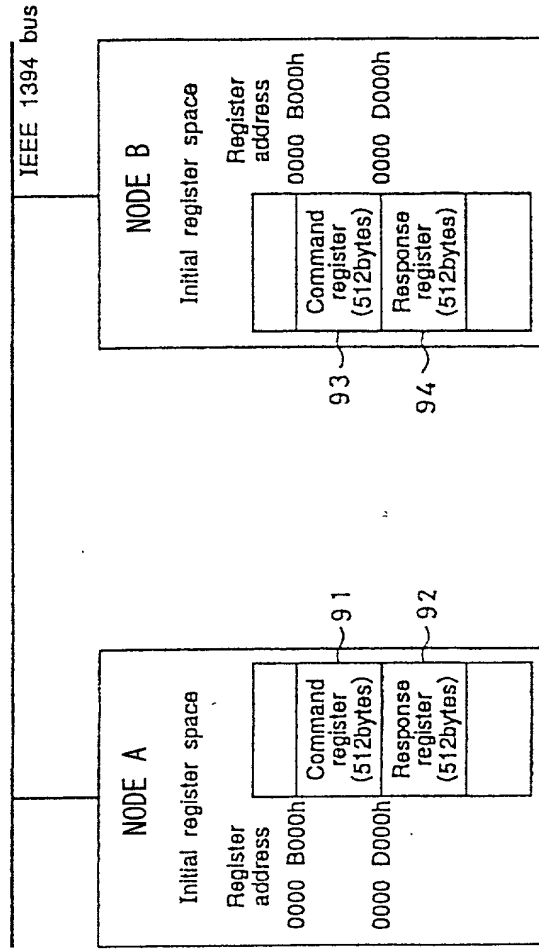


FIG. 20

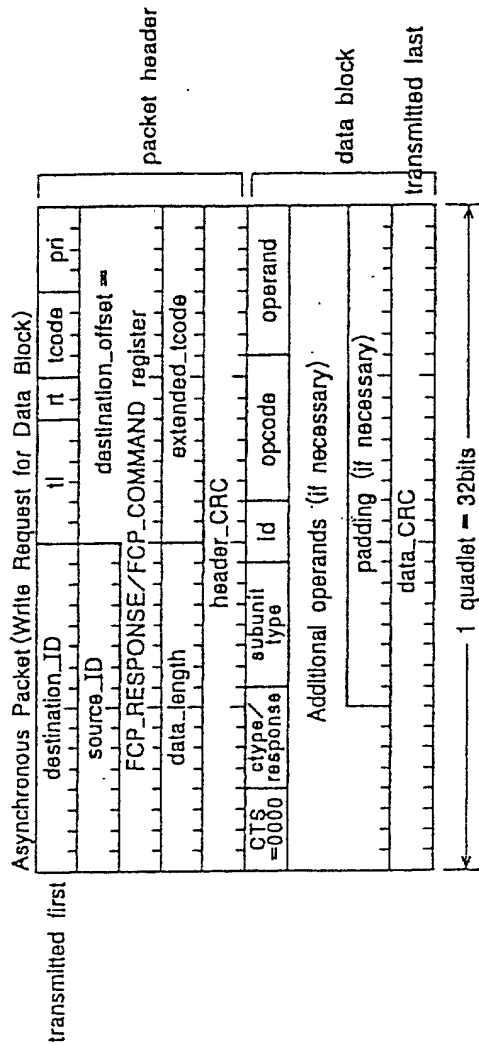


FIG. 21

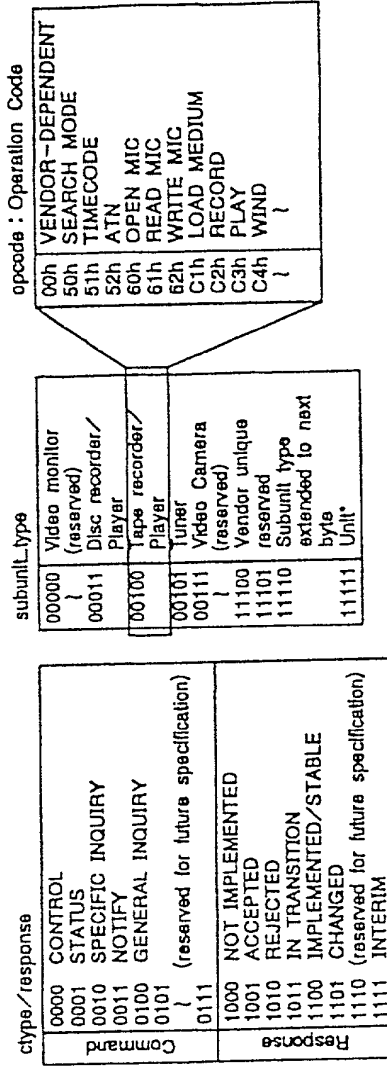


FIG. 22A

FIG. 22B

FIG. 22C

AV/C control		tape recorder /player		ID0	PLAY	FORWARD
CTS=	c type=	subunit	id=	opcode=	operand=	
0000	0000	type=	000	C3h	75h	
		00100				

FIG. 23A

AV/C accepted		tape recorder /player		ID0	PLAY	FORWARD
CTS=	response	subunit	id=	opcode=	operand=	
0000	=1001	type=	000	C3h	75h	
		00100				

FIG. 23B

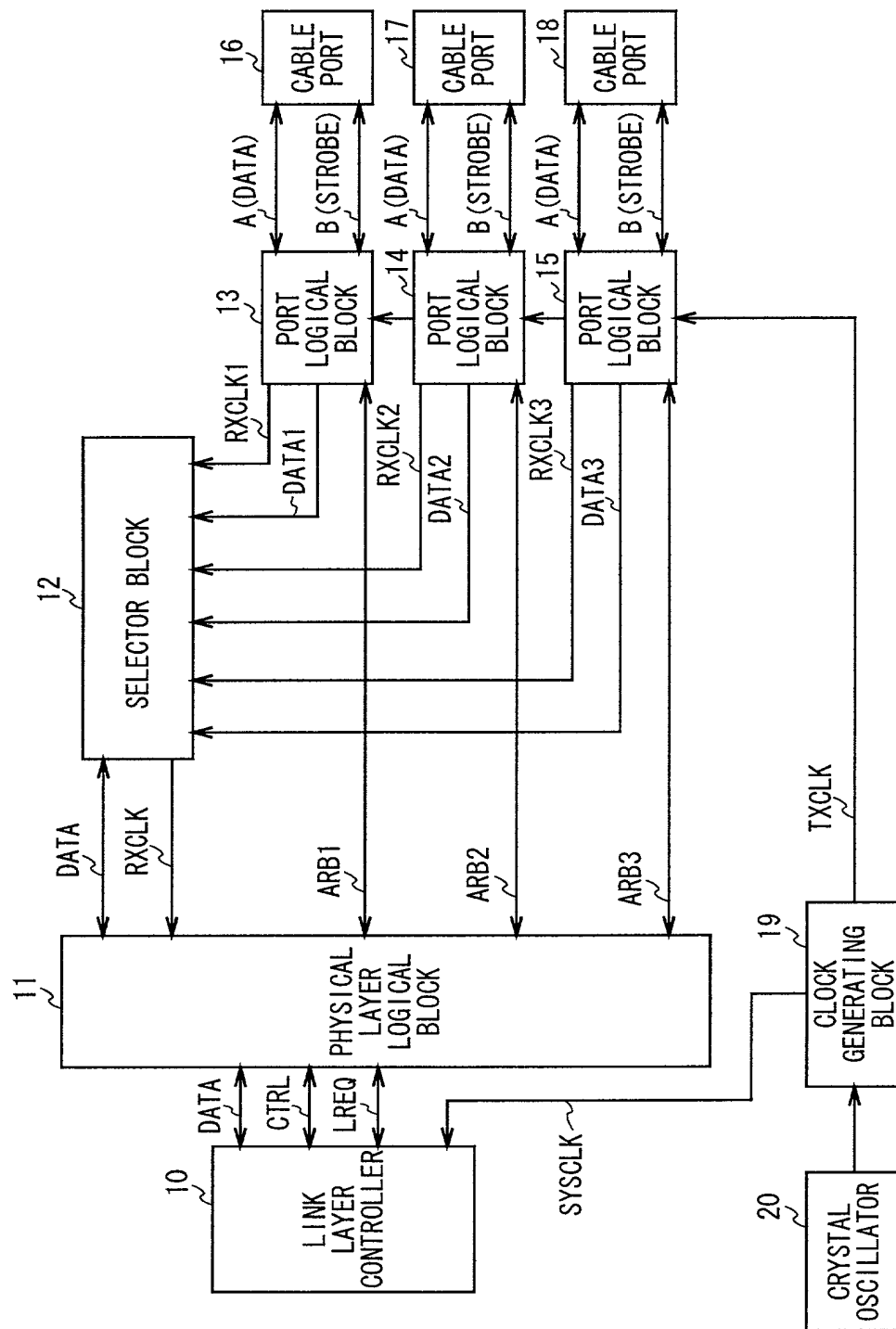


FIG. 24

TRANSMISSION ARBITRATION SIGNAL A (Arb_A_Tx)	DRIVER		REMARKS
	Strb_Tx	Strb_Enable	
Z	–	0	TPA DRIVER: INACTIVE
0	0	1	TPA DRIVER: ACTIVE, STROBE: LOW
1	1	1	TPA DRIVER: ACTIVE, STROBE: HIGH

FIG. 25

TRANSMISSION ARBITRATION SIGNAL B (Arb_B_Tx)	DRIVER		REMARKS
	Data_Tx	Data_Enable	
Z	–	0	TPB DRIVER: INACTIVE
0	0	1	TPB DRIVER: ACTIVE, STROBE: LOW
1	1	1	TPB DRIVER: ACTIVE, STROBE: HIGH

FIG. 26

RECEIVED ARBITRATION COMPARISON VALUE (Arb_n_Rx)'	ARBITRATION RECEIVED FROM ITS PORT (Arb_n_Ix)'	INTERPOLATED ARBITRATION SIGNAL (Arb_n)'	REMARKS
Z	Z	Z	'n=AorB THIS TABLE APPLIES TO BOTH A AND B.
0	Z	0	
1	Z	1	
Z	0	1	IF THIS PORT HAS TRANSMITTED Z, RECEIVED SIGNAL IS EQUIVALENT TO SIGNAL TRANSMITTED BY PORT AT OTHER END OF CABLE.
0	0	0	IF COMPARATOR RECEIVES Z WHILE THIS PORT TRANSMITS 0, OTHER PORT TRANSMITS 1.
Z	1	1	
1	1	1	
			OTHER PORT TRANSMITS 0 OR Z.
			OTHER PORT TRANSMITS 0.
			OTHER PORT TRANSMITS 1 OR Z.

FIG. 27

ARBITRATION TRANSMISSION		LINE STATE NAME	REMARKS
(Arb_A_Tx)	(Arb_B_Tx)		
Z	Z	IDLE	TRANSMITTED TO INDICATE GAP.
Z	0	TX_REQUEST	TRANSMITTED TO PARENT NODE TO REQUEST BUS.
		TX_GRANT	TRANSMITTED TO CHILD NODE WHEN BUS IS GIVEN.
0	Z	TX_PARENT_NOTIFY	TRANSMITTED TO NODE OF PARENT CANDIDATE IN Tree_ID PHASE.
0	1	TX_DATA_PREFIX	TRANSMITTED BEFORE PACKET DATA OR BETWEEN PACKET DATA OF SUBACTION CONNECTED.
1	Z	TX_CHILD_NOTIFY	TRANSMITTED TO CHILD NODE TO ACKNOWLEDGE PARENT_NOTIFY.
		TX_IDENT_DONE	TRANSMITTED TO PARENT NODE TO INDICATE THAT self_ID PHASE IS COMPLETED.
1	0	TX_DATA_END	TRANSMITTED AT END TIME OF PACKET TRANSFER.
1	1	BUS_RESET	TRANSMITTED TO RECONSTRUCT THE BUS.

FIG. 28



RECEPTION ARBITRATION SIGNAL		LINE STATE NAME	REMARKS
(Arb_A_Rx)	(Arb_B_Tx)		
Z	Z	IDLE	PHY OF ADJACENT NODE CONNECTED IS NOT IN OPERATION.
Z	0	RX_PARENT_NOTIFY	PHY OF ADJACENT NODE CONNECTED IS BECOMING CHILD NODE.
Z	1	RX_REQUEST_CANCEL	PHY OF ADJACENT NODE CONNECTED HAS ABANDONED REQUEST.
0	Z	RX_IDENT_DONE	PHY OF CHILD NODE HAS COMPLETED self_ID PHASE.
0	Z	RX_SELF_ID_GRANT	PHY OF PARENT NODE GIVES BUS FOR self_ID.
0	0	RX_REQUEST	PHY OF CHILD NODE REQUESTS BUS.
0	0	RX_ROOT_CONTENTION	PHYS OF CHILD NODE AND ADJACENT NODE CONNECTED ARE BOTH BECOMING CHILD NODE.
0	1	RX_GRANT	PHY OF PARENT NODE GIVES BUS CONTROL.
0	1	RX_PARENT_HANDSHAKE	PHY OF ADJACENT NODE CONNECTED ACKNOWLEDGES PARENT_NOTIFY.
1	Z	RX_DATA_END	PHY OF ADJACENT NODE CONNECTED ENDS TRANSMISSION OF DATA BLOCK AND RELEASES BUS.
1	0	RX_CHILD_HANDSAKE	PHY OF ADJACENT NODE CONNECTED ACKNOWLEDGES TX_CHILD_NOTIFY.
1	0	RX_DATA_PREFIX	PHY OF ADJACENT NODE CONNECTED IS TRANSMITTING PACKET DATA OR FURTHER TRANSMITTING DATA AFTER END OF TRANSMITTING DATA BLOCK.
1	1	BUS_RESET	TRANSMITTED TO RECONSTRUCT BUS.

FIG. 29

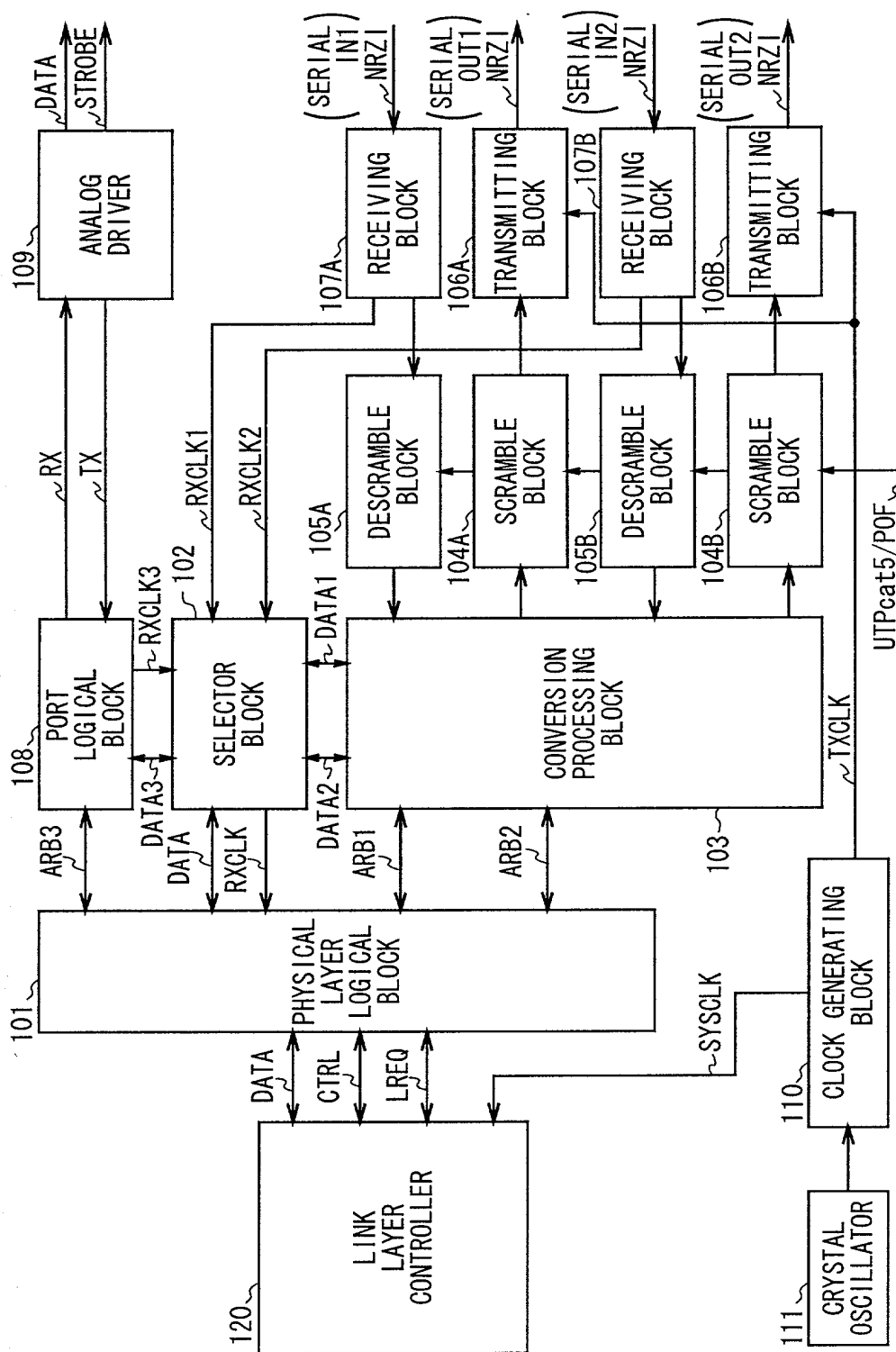


FIG. 30

TRANSMISSION SYMBOL	ARBITRATION STATUS
11111	IDEL
00100	TX_REQUEST
	TX_GRANT
00101	TX_PARENT_NOTIFY
11000 10001	TX_DATA_PREFIX
00111	TX_CHILD_NOTIFY
	TX_IDENT_DONE
01101	TX_DATA_END
00000 11111	BUS_RESET

FIG. 31

11111	11111	IDLE
00101	11111	RX_PARENT_NOTIFY
11111	00100	RX_REQUEST_CANCEL
00111	11111	RX_IDENT_DONE
00100	11111	RX_SELF_ID_GRANT
00100	11111	RX_REQUEST
00101	00101	RX_ROOT_CONTENTION
00100	00100	RX_GRANT
00111	00101	RX_PARENT_HANDSHAKE
01101	11111	RX_DATA_END
11111	00111	RX_CHILD_HANDSHAKE
11000 10001	00100	RX_DATA_PREFIX
11000 10001	00111	RX_DATA_PREFIX
11000 10001	11111	RX_DATA_PREFIX
00000 11111	(do'nt care)	BUS_RESET

FIG. 32

HEXADECIMAL	BINARY	SYMBOL
0	0000	11110
1	0001	01001
2	0010	10100
3	0011	10101
4	0100	01010
5	0101	01011
6	0110	01110
7	0111	01111
8	1000	10010
9	1001	10011
A	1010	10110
B	1011	10111
C	1100	11010
D	1101	11011
E	1110	11100
F	1111	11101

FIG. 33

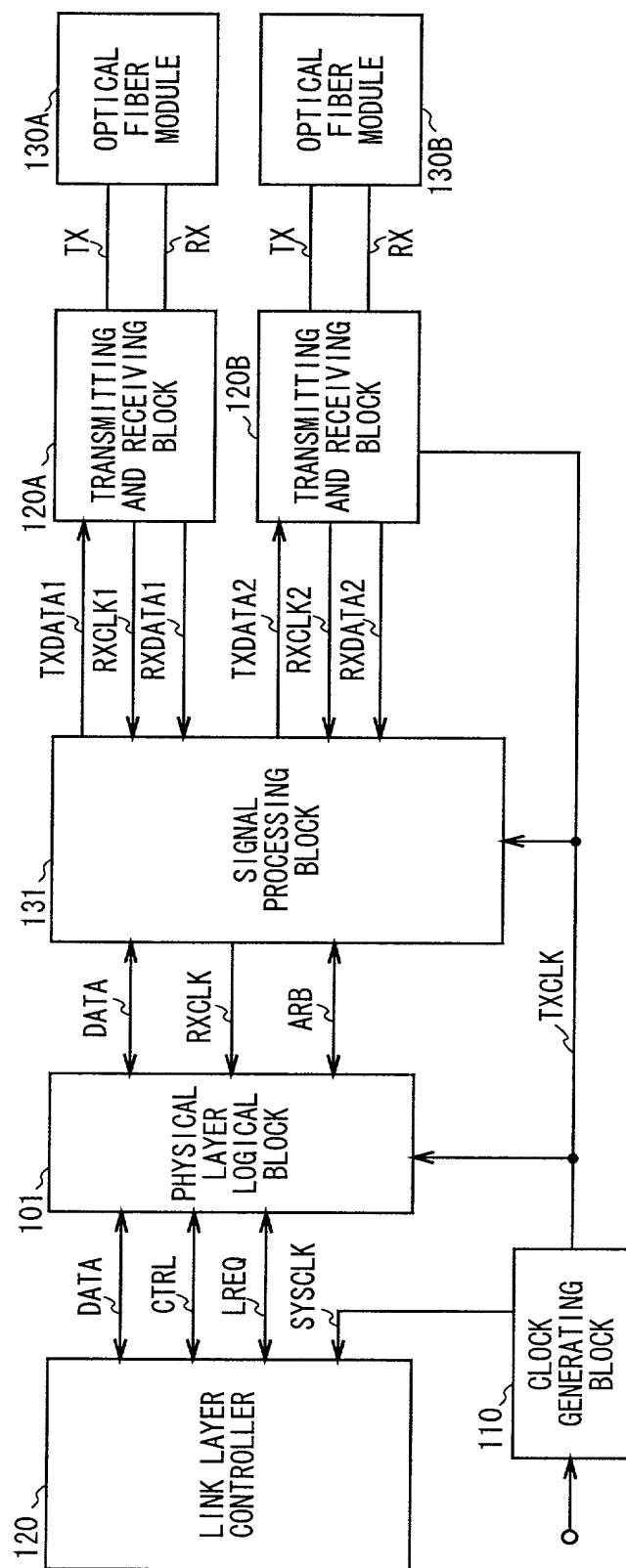


FIG. 34

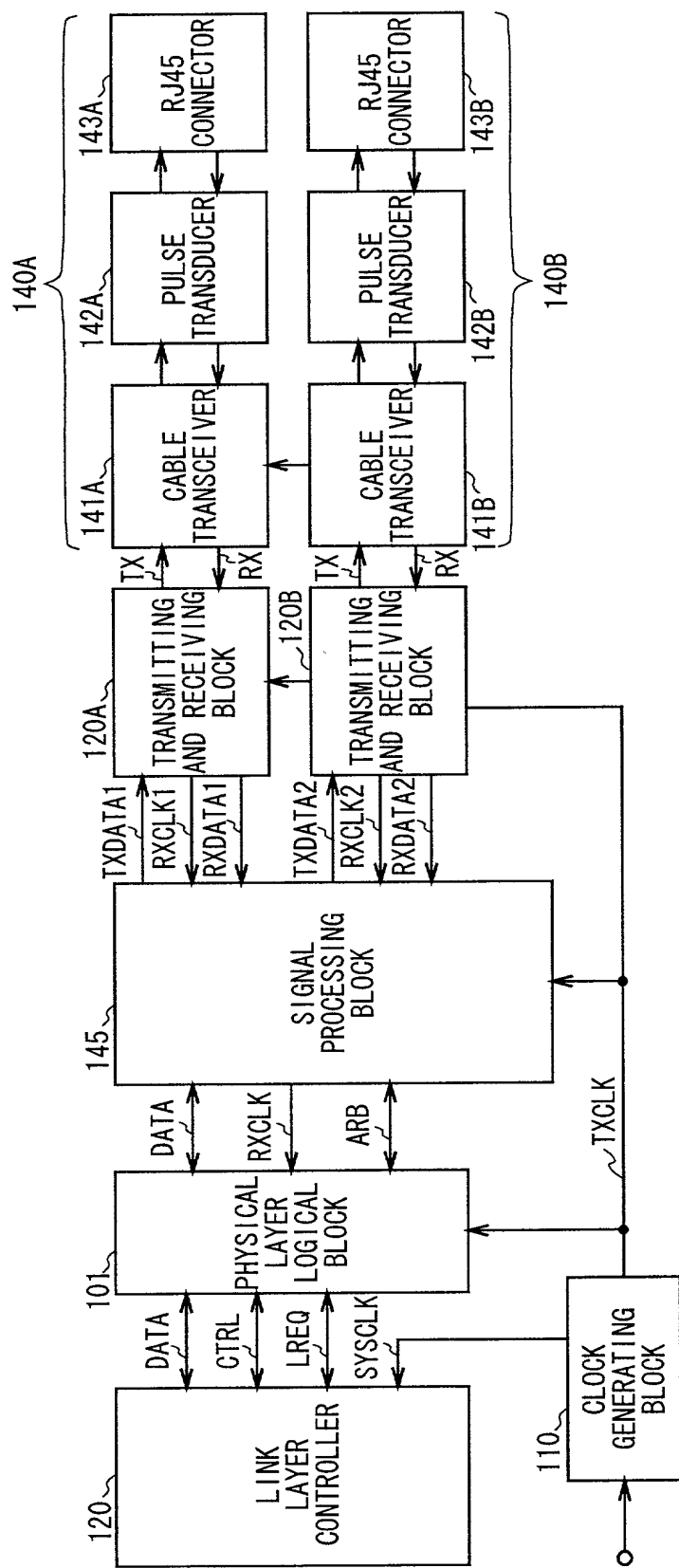


FIG. 35

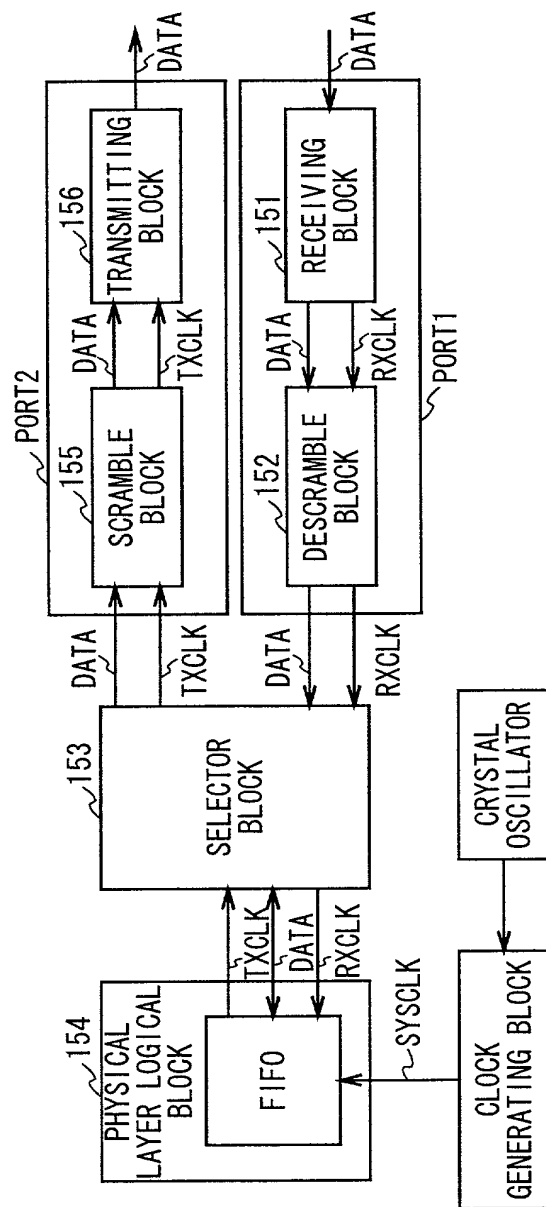


FIG. 36

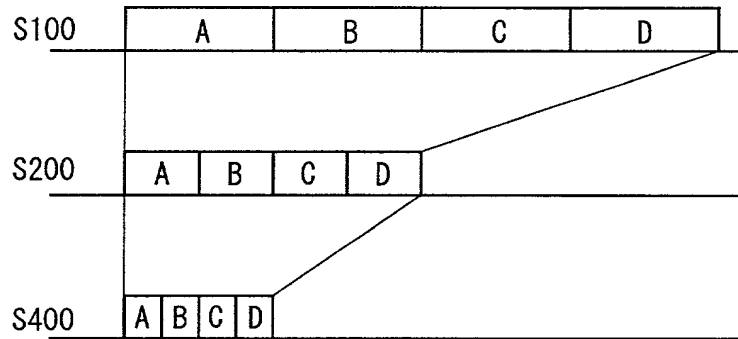


FIG. 37

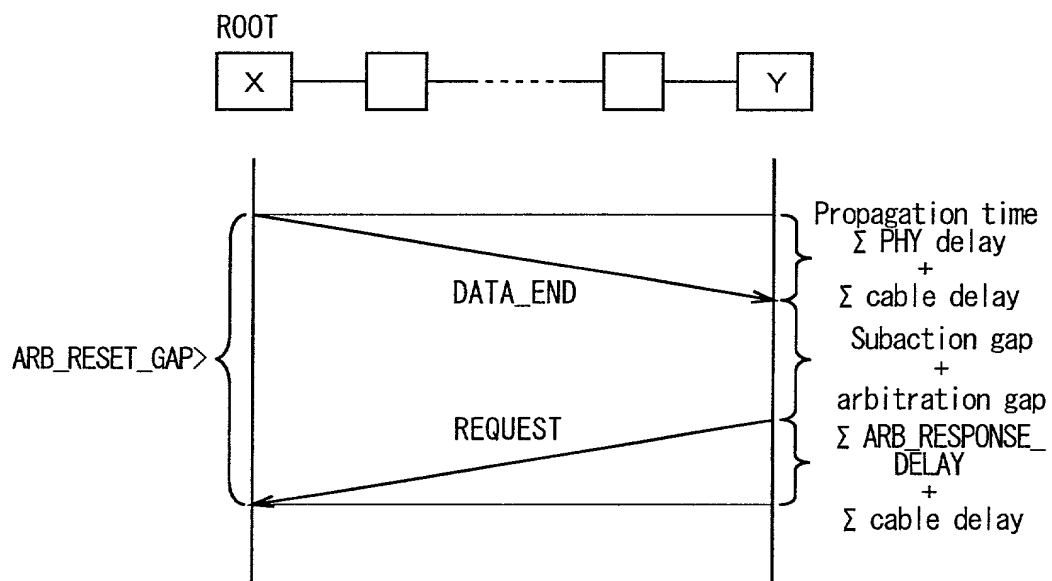


FIG. 38



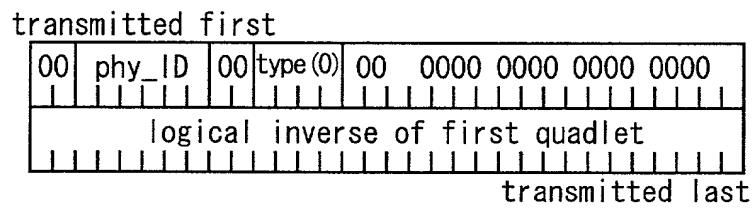


FIG. 39

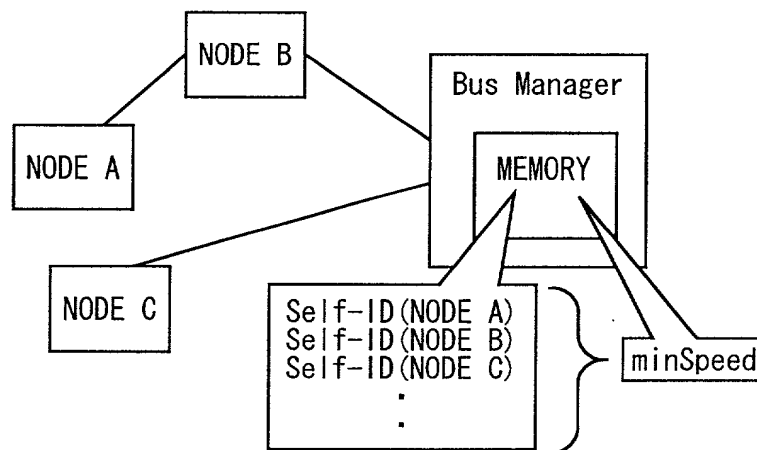


FIG. 40

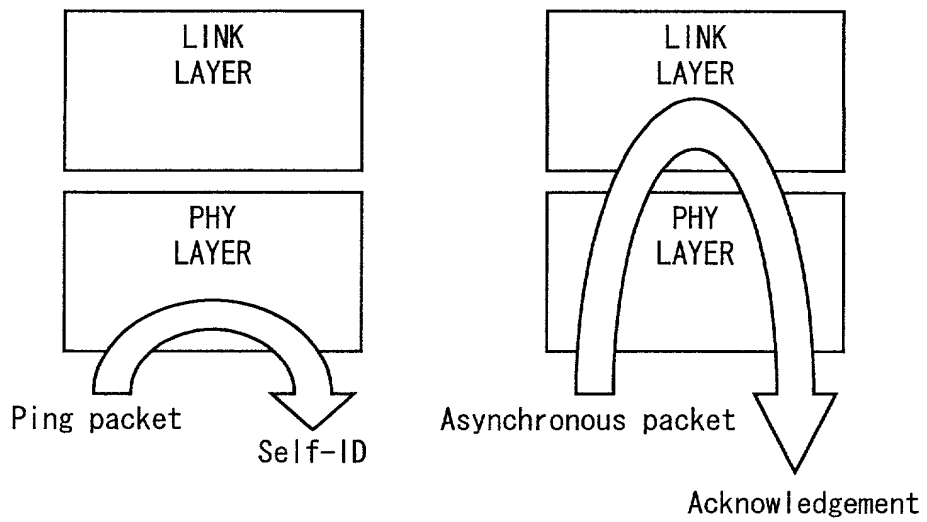


FIG. 41